

IN THE CLAIMS:

1. (CANCELED)
2. (CANCELED)
3. (CANCELED)
4. (CANCELED)
5. (CANCELED)
6. (CANCELED)
7. (CANCELED)
8. (CANCELED)
9. (CANCELED)
10. (CANCELED)

11. (PREVIOUSLY PRESENTED) A computer operable method for establishing arbitrage of calls in a telephone system, comprising the steps of:

selecting first and second call records, providing the call records comprise call characteristic information created at separate locations in the telephone system and providing the call records identify a same called station;

establishing whether the first and second call records are correlated; and
when the first and second call records are correlated, establishing arbitrage.

12. (PREVIOUSLY PRESENTED) A computer operable method as recited in claim 11, wherein the method step for establishing whether the first and second call records are correlated comprises:

subtracting a first timestamp included with the first call record from a first timestamp included with the second call record, wherein a first timestamp is time of a call initiation signal;
when the absolute value of the result of the first timestamp subtraction method step is greater than a first preselected value,

identifying the first and second call records as uncorrelated, otherwise,
identifying the first and second call records as correlated; and
when the first and second call records are identified as correlated and a second timestamp included with the first and second call records is used to establish correlation of the first and second call records,

subtracting the second timestamp of the first call record from the second timestamp of the second call record, wherein a second timestamp is the time of a first party disconnect signal; and

when the absolute value of the result of the second timestamp subtraction method step is greater than a second preselected value, identifying the first and second call records as uncorrelated.

13. (PREVIOUSLY PRESENTED) A computer operable method as recited in claim 12, wherein the method step for establishing whether the first and second call records are correlated further comprises:

when the first and second call records are identified as correlated and a third timestamp included with the first and second call records is used to establish correlation of first and second call records,

subtracting the third timestamp of the first call record from the third timestamp of the second call record, wherein a third timestamp is the time of a call connect signal; and

when the absolute value of the result of the third timestamp subtraction method step is greater than a third preselected value, identifying the first and second call records as uncorrelated;

when the first and second call records are identified as correlated, the identity of a calling station included in the first and second call records is used to establish correlation of first and second call records, and when the call records identify different calling stations, identifying first and second call records as uncorrelated;

when the first and second call records are identified as correlated, a charge number of the calling station included in the first and second call records is used to establish correlation of the first and second call records, and when the call records identify different charge numbers, identifying the first and second call records as uncorrelated; and

when the first and second call records are identified as correlated, a jurisdiction of the call included in the first and second call records is used to establish correlation of the first and second call records, and when the call records identify different jurisdictions, identifying the first and second call records as uncorrelated.

14. (PREVIOUSLY PRESENTED) A computer operable method as recited in claim 11, wherein the method step for establishing arbitrage comprises:

when a forward interworking parameter bit is used to establish arbitrage, identifying the percentage of calls wherein forward interworking parameter bit is set;

when a backward interworking parameter bit is used to establish arbitrage, identifying the percentage of calls wherein backward interworking parameter bit is set;

when percentage of calls wherein identity of calling station is included in the call records is used to establish arbitrage, identifying the percentage of calls wherein the identity of the calling station is included in the call records;

when the percentage of calls terminating in an independent local exchange carrier is used to establish arbitrage, identifying the percentage of calls terminating in an independent local exchange carrier;

when percentage of calls wherein jurisdiction indicator parameter is available is used to establish arbitrage, identifying the percentage of calls wherein the jurisdiction indicator parameter is available;

when percentage of calls wherein carrier identification parameter is available is used to establish arbitrage, identifying the percentage of calls wherein the carrier identification parameter is available; and

when percentage of calls wherein the number of area codes associated with the calling station is used to establish arbitrage, identifying the number of area codes associated with the calling station; and

combining results of above method steps.

15. (PREVIOUSLY PRESENTED) A computer operable method as recited in claim 11, wherein the method step for establishing arbitrage comprises:

creating a historical traffic profile of first and second connecting carriers, wherein the connecting carriers connect to the local exchange carrier;

computing the degree to which traffic profiles of the first and second connecting carriers change inversely to each other; and

using the results of the computation method step to establish arbitrage.

16. (PREVIOUSLY PRESENTED) A computer program storage medium readable by a computer, tangibly embodying a computer program of instructions executable by the computer to perform method steps for identifying arbitrage of calls in a telephone system, the steps comprising:

selecting first and second call records, providing the call records comprise call characteristic information created at separate locations in the telephone system and providing the call records identify a same called station;

establishing whether the first and second call records are correlated; and
when the first and second call records are correlated, establishing arbitrage.

17. (PREVIOUSLY PRESENTED) A computer program storage medium as recited in claim 16, the step for establishing whether the first and second call records are correlated comprising:

subtracting a first timestamp included with the first call record from a first timestamp included with the second call record, wherein a first timestamp is time of a call initiation signal;

when the absolute value of the result of the first timestamp subtraction method step is greater than a first preselected value,

identifying the first and second call records as uncorrelated, otherwise,

identifying the first and second call records as correlated; and

when the first and second call records are identified as correlated and a second timestamp included with the first and second call records is used to establish correlation of the first and second call records,

subtracting the second timestamp of the first call record from the second timestamp of the second call record, wherein a second timestamp is the time of a first party disconnect signal; and

when the absolute value of the result of the second timestamp subtraction method step is greater than a second preselected value,

identifying the first and second call records as uncorrelated.

18. (PREVIOUSLY PRESENTED) A computer program storage medium as recited in claim 17, the step for establishing whether the first and second call records are correlated further comprising:

when the first and second call records are identified as correlated and a third timestamp included with the first and second call records is used to establish correlation of the first and second call records,

subtracting the third timestamp of the first call record from the third timestamp of the second call record, wherein a third timestamp is the time of a call connect signal; and

when the absolute value of the result of the third timestamp subtraction method step is greater than a third preselected value, identifying the first and second call records as uncorrelated;

when the first and second call records are identified as correlated, the identity of a calling station included in the first and second call records is used to establish correlation of first and second call records, and when the call records identify different calling stations, identifying the first and second call records as uncorrelated;

when the first and second call records are identified as correlated, a charge number of the calling station included in the first and second call records is used to establish correlation of the first and second call records, and when the call records identify different charge numbers, identifying the first and second call records as uncorrelated; and

when the first and second call records are identified as correlated, the jurisdiction of the call included in the first and second call records is used to establish correlation of the first and second call records, and when the call records identify different jurisdictions, identifying the first and second call records as uncorrelated.

19. (PREVIOUSLY PRESENTED) A computer program storage medium as recited in claim 16, the step for establishing arbitrage comprising:

when a forward interworking parameter bit is used to establish arbitrage, identifying the percentage of calls wherein forward interworking parameter bit is set;

when a backward interworking parameter bit is used to establish arbitrage, identifying the percentage of calls wherein backward interworking parameter bit is set;

when percentage of calls wherein identity of the calling station is included in the call records is used to establish arbitrage, identifying the percentage of calls wherein the identity of the calling station is included in the call records;

when percentage of calls terminating in an independent local exchange carrier is used to establish arbitrage, identifying the percentage of calls terminating in an independent local exchange carrier;

when percentage of calls wherein jurisdiction indicator parameter is available is used to establish arbitrage, identifying the percentage of calls wherein the jurisdiction indicator parameter is available;

when percentage of calls wherein carrier identification parameter is available is used to establish arbitrage, identifying the percentage of calls wherein the carrier identification parameter is available; and

when percentage of calls wherein the number of area codes associated with the calling station is used to establish arbitrage, identifying the number of area codes associated with the calling station; and
combining results of above method steps.

20. (PREVIOUSLY PRESENTED) A computer program storage medium as recited in claim 16, the step for establishing arbitrage comprising:

creating a historical traffic profile of first and second connecting carriers, wherein the connecting carriers connect to the local exchange carrier;

computing the degree to which traffic profiles of the first and second connecting carriers change inversely to each other; and

using the results of the computation method step to establish arbitrage.

21. (PREVIOUSLY PRESENTED) A method comprising:

selecting first and second call records for a call through a telephone system, each of the first and second call records including call characteristic information created at separate locations in the telephone system and identifying a same called station;

establishing whether the first and second call records are correlated; and

when the first and second call records are established as correlated, establishing arbitrage in accordance with the call characteristic information in the first and second call records.

22. (PREVIOUSLY PRESENTED) A method as recited in claim 21, wherein each of the first and second call records includes a first timestamp indicating a time of call initiation signal and a second timestamp indicating a time of a first party disconnect signal, said establishing whether the first and second call records are correlated comprising:

subtracting the first timestamp included with the first call record from the first timestamp included with the second call record,

when an absolute value of said subtracting the first timestamp is greater than a first preselected value, establishing the first and second call records as uncorrelated, otherwise, establishing the first and second call records as correlated,

when the first and second call records are identified as correlated in accordance with the absolute value of said subtracting the first timestamp, subtracting the second timestamp of the first call record from the second timestamp of the second call record, and

when the absolute value of said subtracting the second timestamp is greater than a second preselected value, establishing the first and second call records as uncorrelated.

23. (PREVIOUSLY PRESENTED) A method as recited in claim 22, wherein each of the first and second call records includes a third timestamp indicating a time of a call connect signal, said establishing whether the first and second call records are correlated further comprising:

when the first and second call records are identified as correlated in accordance with the absolute value of said subtracting the second timestamp, subtracting the third timestamp of the first call record from the third timestamp of the second call record, and

when an absolute value of said subtracting the third timestamp is greater than a third preselected value, establishing the first and second call records as uncorrelated.

24. (PREVIOUSLY PRESENTED) A method as recited in claim 21, wherein said establishing arbitrage comprises:

establishing arbitrage in accordance with the percentage of calls wherein a forward interworking parameter bit is set, the percentage of calls wherein a backward interworking parameter bit is set, the percentage of calls wherein the identity of the calling station is included in the call records, the percentage of calls terminating in an independent local exchange carrier, the percentage of calls wherein the jurisdiction indicator parameter is available, the percentage of calls wherein the carrier identification parameter is available, and the number of area codes associated with the calling station.

25. (PREVIOUSLY PRESENTED) A method as recited in claim 21, wherein said establishing arbitrage comprises:

establishing arbitrage in accordance with a degree to which traffic profiles of first and second connecting carriers change inversely to each other.

26. (PREVIOUSLY PRESENTED) An apparatus comprising:

means for selecting first and second call records for a call through a telephone system, each of the first and second call records including call characteristic information created at separate locations in the telephone system and identifying a same called station;

means for establishing whether the first and second call records are correlated; and

means for, when the first and second call records are established as correlated, establishing arbitrage in accordance with the call characteristic information in the first and second call records.

27. (PREVIOUSLY PRESENTED) A method comprising:

establishing whether first and second call records for a call through a telephone system are correlated, each of the first and second call records including call characteristic information created at separate locations in the telephone system and identifying a same called station; and

when the first and second call records are established as correlated, establishing arbitrage in accordance with the call characteristic information in the first and second call records.

28. (PREVIOUSLY PRESENTED) An apparatus comprising:

means for establishing whether the first and second call records for a call through a telephone system are correlated, each of the first and second call records including call characteristic information created at separate locations in the telephone system and identifying a same called station; and

means for, when the first and second call records are established as correlated, establishing arbitrage in accordance with the call characteristic information in the first and second call records.

29. (PREVIOUSLY PRESENTED) A method comprising:

determining arbitrage through a telephone system by analyzing different call records for a respective call through the telephone system, the different call records being created at different locations in the telephone system, respectively, and each of the call records including characteristic information for the call and identifying a same called station.